WHAT IS CLAIMED IS:

1. A carousel changer, comprising:

a turntable provided with a plurality of trays around its rotating shaft, said trays each carrying a disk thereon;

a motor rotating said turntable;

a rib formed annularly at said turntable and provided with a plurality of recessed portions and a plurality of raised portions for indicating the position of said plurality of trays in said turntable;

a sensor detecting said recessed portions and said raised portions; and

a controller controlling said motor based on the ratio of the width of said recessed portion and the width of said raised portion detected by said sensor.

2. The carousel changer according to claim 1, wherein

said controller controls said motor based on the ratio of the widths of said recessed portion and said raised portion adjacent to each other.

3. The carousel changer according to claim 2, wherein

said controller includes a timer counting time for which said sensor detects said recessed portion or said raised portion to obtain the width of said recessed portion or said raised portion.

4. The carousel changer according to claim 1, wherein

said rib includes,

a plurality of count areas each for identifying one of said trays; and

a plurality of stop areas for stopping the rotation of said turntable when said plurality of trays come to a prescribed position, said stop areas alternated with said count areas,

said controller determines that said sensor ends detection of said count area and starts to detect said stop area when the width of said raised portion is at most the width of said adjacent recessed portion upon detecting said count area, and

said controller determines that said sensor ends detection of said stop area and starts to detect said count area when the width of said raised portion is at most the width of said adjacent recessed portion upon detecting said stop area.

5. The carousel changer according to claim 1, wherein

said rib includes,

a plurality of count areas each for identifying one of said trays; and

a plurality of stop areas for stopping the rotation of said turntable when said plurality of trays come to a prescribed position, said stop areas alternated with said count areas,

said controller identifies each of said plurality of trays based on the number of detected recessed portions or raised portions while said sensor detects said count area.

6. The carousel changer according to claim 5, wherein

said controller counts the number of detected recessed portions or raised portions by determining that the width of said raised portion is wider than the width of said adjacent recessed portion.

7. The carousel changer according to claim 5, wherein

the number of recessed portions or raised portions in said count area is different from the number of recessed portions or raised portions in said stop area.